Case 2366

Hyla chrysoscelis Johnson, 1961 (Amphibia, Anura): proposed conservation and designation of a neotype

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Abstract. The purpose of this application is to stabilise the modern usage of the names *Hyla versicolor* and *H. chrysoscelis* for two cryptic species (the former tetraploid, the latter diploid) of tree frogs occurring in the south-eastern United States.

1. An application by us to deal with the nomenclatural problems posed by the recognition (Johnson, 1961) of two very similar but distinct species of treefrog in the eastern United States was published in 1983 (BZN **40**: 165–166). This was voted upon by the Commission in September 1985.

2. That application sought, inter alia, to place the specific name *chrysoscelis* Cope, 1880 (published with the generic name *Hyla*) on the Official List and to designate a neotype for that species.

3. Johnson (1959; 1961; 1963; 1966) reported that one of the frog species concerned had a faster call rate than the other. The former species is diploid (Bogart & Wasserman, 1972) while the slower-calling species is tetraploid (Wasserman, 1970). Johnson found minor morphological differences, and by means of cross-breeding experiments demonstrated genetic incompatibility and differentiation at the specific level. On geographical grounds Johnson (1961) used the name *Hyla versicolor* Le Conte, 1825 for the tetraploid slow-calling species and adopted *H. chrysoscelis* Cope, 1880 (originally published as *H. femoralis chrysoscelis*) for the diploid fast-caller.

4. The name *chrysoscelis* had remained unused from 1880 until 1947, when it was revived by Smith & Brown (p. 49) for a subspecies of *H. versicolor*, which had been an established name for many years. Examination by Fitzgerald, Smith & Guillette (1981) of the holotype of *H. femoralis chrysoscelis* Cope, 1880 (preserved in the Academy of Natural Sciences of Philadelphia as specimen ANSP 13672) showed that it is in fact tetraploid, contrary to the usage of *chrysoscelis* by Johnson mentioned above. No original type of *H. versicolor* Le Conte (1825, p. 281) exists.

5. Only one synonym is known for *H. chrysoscelis* sensu Johnson (1961), namely *H. versicolor sandersi* Smith & Brown, 1947 (p. 48). Since Johnson's work *H. chrysoscelis* has been used for the diploid species in a very large number of publications (a representative list is held by the Commission Secretariat), while *sandersi* has been used only by Schmidt (1953, p. 73) and Conant (1958, p. 282); further details were published in our earlier application (BZN **40**: 165–166). It is therefore highly desirable to conserve *chrysoscelis* sensu Johnson rather than to revive the name *sandersi*.

6. In our earlier application we proposed that the Commission set aside the type status of the holotype of *H. chrysoscelis* Cope, 1880 (specimen ANSP 13672 mentioned in para. 4) and substitute as neotype the holotype of *H. versicolor sandersi*, which is in the United States National Museum (specimen USNM 123978). This would have made *H. sandersi* Smith & Brown, 1947 a junior objective synonym of *chrysoscelis* Cope, 1880, and would attach the latter name to the diploid species.

7. During the voting on our earlier application it was pointed out that it was inappropriate to quote 'Cope, 1880' as the author of *chrysoscelis* in the modern sense, when Cope had no knowledge of that taxon and especially as his holotype (ANSP 13672) had now been shown to belong to the species known in recent years as *versicolor*. For this reason no ruling was published.

8. Accordingly, we now ask the International Commission on Zoological Nomenclature:

(1) to use its plenary powers to suppress for the purposes of both the Principle of Priority and the Principle of Homonymy all uses of the name *chrysoscelis* published in combination with the generic name *Hyla* Laurenti, 1768 (p. 32) prior to that by Johnson (1961);

(2) to use its plenary powers to suppress the name *sandersi* Smith & Brown, 1947, as published in the trinomen *Hyla versicolor sandersi*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(3) to designate as neotype of *Hyla chrysoscelis* Johnson, 1961 the specimen USNM 123978 mentioned in para. 6 above;

(4) to place on the Official List of Specific Names in Zoology the names:
   (a) *versicolor* Le Conte, 1825, as published in the binomen *Hyla versicolor*, and
   (b) *chrysoscelis* Johnson, 1961, as published in the binomen *Hyla chrysoscelis* and as interpreted by the neotype USNM 123978 designated in (3) above;

(5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the names:
   (a) *chrysoscelis*: all uses published in combination with the generic name *Hyla* Laurenti, 1768 prior to that by Johnson (1961), as suppressed in (1) above, and
   (b) *sandersi* Smith & Brown, 1947, as published in the trinomen *Hyla versicolor sandersi* and as suppressed in (2) above.

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